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The Experience of Exchange Rate Regimes in Southeastern Europe in a Historical and Comparative Perspective

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Austro-Hungarian Empire

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1. Monetary History of the Austro-Hungarian Empire (1867–1914)

After Prussia had defeated the Austrian Empire at the battle of Königgrätz in 1866, Austria ceased to adjust its currency to the German Customs Union (*Zollverein*) and pulled out of the Vienna Coinage Treaty of 1857 (*Wiener Münzvertrag*) and in 1867 oriented its coinage on the bimetallic standard of the Latin Monetary Union (LMU) founded by France, Belgium, Switzerland and Italy in 1865. Although Austria minted gold coins² and had planned to join the LMU in 1870, the Empire never actually did as financial difficulties soon ended specie convertibility and as its monetary system remained in disarray. Yet the question of the monetary standard remained on the agenda until the 1890s.

The provisions of these coinage agreements did not apply to paper money, even though paper money had been legal tender since the suspension of convertibility in 1848. Next to the silver gulden, Austria had the paper gulden, which was exchangeable for silver coins at a discount. All efforts to eliminate the silver agio, which would have necessitated a devaluation of the paper currency, were unsuccessful because the state's financing needs remained so high. At the beginning of the 1860s the premium of silver coins versus paper currency had augmented to more than 40%, prompting the government to issue a new central bank act, the Plener Act, named after the then minister of finance. Its purpose was to bind the issue of paper money to the size of the currency reserves.³ The direct

¹ I would like to thank Walter Antonowicz and Bernhard Mussak from the Bank History Archives of the OeNB for their valuable comments and excellent support.

² Austria minted gold coins of a value of 8 and 4 *gulden*, which was the equivalent of 20 and 10 French francs.

³ The statutes of the *privilegierte oesterreichische National-Bank* of 1817 and 1841 did not contain any rules concerning a precious metal cover of the banknotes in circulation. In 1858, a precious metal cover quota of one third was introduced. 1862 it was substituted for a direct quota on the circulation of notes similar to the British system of the Peel's Bank Act (cf. Compass, 1914, p. 137).

quota for banknotes in circulation was fixed at 200 million gulden and while this amount had to be covered by domestic income-generating assets of the bank, the amount of banknotes surpassing the quota had to be completely covered by the central bank's gold and silver reserves. Although this measure succeeded in reducing the silver agio, the contraction of the money supply also acted as a damper on the economy. Yet as this quota proved to be too tight, an indirect quota was introduced in 1887 which emulated the rules of the German Reichsbank. According to article 84 of the statutes of the Austro-Hungarian Bank of 1887 and 1899, the metal reserves had to cover at least 40% of the banknotes in circulation. The remaining amount of banknotes in circulation (i.e. the banknotes not covered by precious metal) together with the overnight liabilities had to be covered by other domestic income-generating assets (e.g. Escompte and Lombard credit), foreign currency denominated bills of exchange and foreign banknotes. Once the amount of banknotes in circulation had surpassed the threshold of 400 million kronen (or 600 million kronen as of 1911), the excess amount was taxed at a rate of 5%.

In 1867, Hungary was recognized as an autonomous part of the so-called Austro-Hungarian Empire, which was reflected by the institutional transformation of the *privilegirte Oesterreichische National-Bank* into the *Austro-Hungarian Bank* in 1878. According to the principle of duality there was a head office in Vienna and one in Budapest both of which managed the 38 branches of the bank separately. The emperor conferred the sole privilege of note issue to the Austro-Hungarian Bank.

The collapse of bimetallism due to a sharp contraction of the value of silver against gold had a significant impact on the development of Austrian coinage and the monetary system in the last third of the 19th century. By the end of the 1870s nearly all European countries and the U.S.A. had adopted a gold standard. Austria remained on a silver standard, which entailed steadily growing losses. Thus, silver coins were no longer suitable as a standard. Paper currency became the standard, and silver only served as the precious metal cover for the banknotes. The importance of coins diminished as the volume of cashless payment transactions surged. Finally, Austria adopted a gold standard with the introduction of the krone in 1892, satisfying an urgent need for monetary reform. The Austrian gulden was valued at 2 kronen, with 1 krone subdivided into 100 heller. According to the currency laws of 1892 one krone was equivalent to 0.3049 grams of fine gold with a fineness of 900‰. The gulden banknotes entitled *Österreichische Währung* (Austrian currency) remained legal tender until 1900, when the krone was declared sole legal tender.

The exchange rate, however, soon deviated considerably from mint parity, the gold agio peaked at +6.5% in November 1893 and declined to +3.8% at end of the year. It was only in late 1895 that the deviation from mint parity dropped below

+1.0% again.⁴ Mint parity was eventually achieved in 1896 and was maintained until the outbreak of World War I. As the convertibility of bank notes into specie had never been introduced, Austria-Hungary shadowed the Classical Gold Standard from 1896 to 1914.⁵

In order to keep mint parity it seemed necessary to concentrate the whole staatlicher Golddienst⁶ at the central bank. In 1901, the gold reserves of the government were transferred to the Austro-Hungarian Bank. The changing of the discount rate was the main policy tool to adjust the economy to balance of payments deficits by attracting short-term foreign capital. Yet this tool was not used very intensively. Matthias Morys provides two main reasons for shadowing the gold standard rather than introducing full-fledged convertibility of banknotes into gold: First, the strategy allowed Austria-Hungary to benefit from a quasi-fixed exchange rate regime. Second, it granted the peripheral economy more flexibility in times of crises.⁷

2. Introduction to the Historical Time Series (1896–1914)

The annual data presented in this time series cover the period from 1896 to 1914 (end of June) when Austria-Hungary shadowed the Classical Gold Standard. The analyzed currency area is the Austro-Hungarian Empire and its monetary policy institution, the Austro-Hungarian Bank.

2.1 Exchange Rates

Exchange rate data include annual averages of the ratio between the *krone* (K) and the currencies of the three major core countries, i.e. German mark, French franc, and pound sterling. The mint parity for 100 German marks was equal to 117.5727 K, for 100 French francs 95.2258 K, and for one pound sterling 24.0174 K. The great stability of the exchange rate which continued to stay close to mint parity underpins the conclusion that Austria-Hungary was *de facto* on gold. The annual

⁴ Pressburger, Die Oesterreichisch-ungarische Bank 1878–1923, Zweiter Teil, Band 2, p. 700.

⁵ Provided that the exchange rate follows mint parity closely enough, countries are often considered to be *de facto* on gold if they shadow the gold standard. At the time, specie payment did not exist domestically, i.e. within the Austro-Hungarian Empire, in the sense that the issuing bank would redeem banknotes against gold coins or gold bullion, but it existed abroad (cf. Morys, p. 23f).

⁶ i.e. a governmental body managing the payments and foreign currency holdings of the government abroad

⁷ It is interesting to note that Matthias Morys found out that Austria-Hungary exhibited a lower standard deviation from mint parity than some other countries which operated under a system of *de jure* adherence to gold (cf. Morys, p. 25).

entries were calculated on the basis of the monthly average exchange rates of the Vienna stock exchange.

2.2 Currency Reserves

Table 1 (columns 4 to 6) displays the currency reserves of the Austro-Hungarian Bank which consisted of two components. The first component included the official precious metal reserves (*Barschatz*) according to Articles 84 and 111 of the central bank statute. Until 1887 the *Barschatz* contained only coins and bullions of gold and silver. As of 1888, the central bank was allowed to include bills of exchange drawn on gold standard countries up to an amount of 60 million *kronen* in the *Barschatz*. From 1900 onwards the *Barschatz* comprised all domestic coins, foreign gold coins, gold bullion coins, and foreign exchange reserves (foreign banknotes and commercial bills of exchange drawn on gold standard countries with a three-month maturity) up to an amount of 60 million *kronen*, which was reached for the first time in 1901. Yet the convertibility of banknotes into specie remained suspended.

The second component of the Austro-Hungarian currency reserves contained deposits on foreign bank accounts and all foreign exchange reserves excluded from the official metal reserves. While the official metal reserves were published on a weekly basis to increase the confidence in the monetary authority, the amount of the second component was kept secret to leave more room for interventions. Since 1900 these assets were part of the central bank's total cover, and served as collateral for banknote issue until their respective maturity date. Entries for the period between 1896 and 1900 are set to zero due to the limited availability and insignificance of data.

In 1901, the government transferred the management of the government payments abroad to the Austro-Hungarian Bank. In the course of this delegation the bank added the gold reserves of the government to its stock and soon the foreign exchange holdings increased substantially.

2.3 Monetary Base

Table 1 (columns 7 to 9) shows data on the monetary base of the economy. It essentially contains all liquid liabilities of the monetary authority, i.e. banknotes in circulation, deposits at the central bank, and other liabilities payable on demand. Data refer to annual averages calculated from monthly averages. The official metal reserves had to cover at least 40% of the banknotes in circulation

2.4 Discount Rate

The discount rate was the fundamental bank rate set by the general council of the Austro-Hungarian Bank. Table 2 lists all dates when new discount rates came into force. The discount rate was applied to the early redemption of a commercial bill with a three-month maturity.

3. Data Sources

Data concerning exchange rates were taken from the k.k. ministry of finance, *Tabellen zur Währungsstatistik* for the years from 1896 to 1900. For reasons of accessibility, the data from 1901 to 1913 were taken from the annual publication *Compass*. The latter was consulted to get data on discount rates, official metal reserves and the monetary base. Data on assets and liabilities of the bank before 1901 and details on the second component of the currency reserves were retrieved from the reports to the annual shareholders' meeting of the Austro-Hungarian Bank (*Jahressitzung der Generalversammlung der Oesterreichisch-ungarischen Bank*).

Finally, the OeNB's Bank History Archives, which were also used for this short analysis, might be a good starting point for further data collection followed by an in-depth analysis of Austria's monetary history.

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Table 1: Austro-Hungarian Bank 1896–1914

	Exchange Rates for foreign banknotes			Currency reserves		Monetary base			
	1 German mark	1 pound sterling	1 French franc	Barschatz official precious metal reserves (according to Article 84 central bank statute)	Other foreign exchange reserves excluded from the official metal reserves	Total currency reserves (4+5)	Banknotes in circulation	Deposits at the central bank and liabilities payable on demand	Total liquid liabilities (7+8)
1	2	3	4	5	6	7	8	9	
Kronen									
1896	1.17719	24.0348	0.95370	839	0	839	1,175	42	1,218
1897	1.17617	24.0084	0.95273	996	0	996	1,261	61	1,323
1898	1.17552	23.9914	0.95220	986	0	986	1,315	62	1,377
1899	1.17507	23.9772	0.95181	1,014	0	1,014	1,353	74	1,427
1900	1.17480	23.9647	0.95147	1,187	0	1,187	1,358	109	1,467
1901	1.17456	23.9549	0.95127	1,306	35	1,341	1,399	161	1,560
1902	1.17436	23.9480	0.95118	1,444	74	1,518	1,471	161	1,632
1903	1.17425	23.9429	0.95113	1,469	150	1,619	1,565	154	1,718
1904	1.17436	23.9427	0.95119	1,506	156	1,663	1,637	175	1,812
1905	1.17439	23.9432	0.95115	1,489	109	1,598	1,627	195	1,821
1906	1.17437	23.9407	0.95109	1,471	105	1,577	1,756	185	1,941
1907	1.17450	23.9399	0.95120	1,448	92	1,540	1,842	227	2,069
1908	1.17469	23.9448	0.95143	1,505	113	1,618	1,864	174	2,038
1909	1.17479	23.9475	0.95153	1,681	150	1,831	1,973	191	2,164
1910	1.17484	23.9510	0.95144	1,705	90	1,795	2,083	211	2,295
1911	1.17492	23.9600	0.95139	1,681	129	1,810	2,231	219	2,450
1912	1.17523	23.9802	0.95157	1,600	72	1,672	2,299	238	2,536
1913	1.17562	23.9997	0.95170	1,529	98	1,627	2,350	233	2,583
1914*	1.17528	24.0650	0.95507	1,598	n.a.	n.a.	2,194	242	2,436

* Semiannual entries for 1914, average of the first six months until the outbreak of the First World War. (n.a. not available).

Source: OeNB.

Table 2: Discount Rate 1892–1914 Austro-Hungarian Bank

Discount rate	
(Escompte rate)	
effective as of	% p. a.
04/09/1891	5.000
09/01/1892	4.000
06/10/1893	5.000
23/01/1894	4.500
09/02/1894	4.000
13/09/1895	5.000
24/01/1896	4.500
14/02/1896	4.000
14/10/1898	4.500
25/11/1898	5.000
19/05/1899	4.500
19/09/1899	5.000
06/10/1899	6.000
07/12/1899	5.500
22/01/1900	5.000
06/02/1900	4.500
01/03/1901	4.000
05/02/1902	3.500
20/10/1905	4.500
28/05/1906	4.000
28/09/1906	4.500
28/06/1907	5.000
11/11/1907	6.000
11/01/1908	5.000
04/02/1908	4.500
08/05/1908	4.000
24/10/1910	5.000
04/02/1911	4.500
23/02/1911	4.000
22/09/1911	5.000
26/10/1912	5.500
16/11/1912	6.000
28/11/1913	5.500
21/01/1914	5.000
04/02/1914	4.500
13/03/1914	4.000
27/07/1914	5.000

Source: OeNB.